

PIPE LINE IN POLYETHELENE CASING PIPEITEM 1801PART 1 - GENERAL

WORK INCLUDED: (Sec.01) Furnish and install boring-receiving pits, carrier pipe in a casing pipe as indicated on the Drawings and specified.

RELATED WORK: (Sec. 02) Furnished/paid for in this Item: (as applicable)

Earth Excavation/Backfill including boring and receiving pits
Rock Excavation and Backfill including boring and receiving pits
Concrete
Testing of Pipe Lines and Sewers

QUALITY ASSURANCE: (Sec.03) Materials shall be new and of the best quality.

REFERENCES: (Sec. 04) (As applicable)

ASTM - American Society for Testing and Materials
ODOT - Ohio Department of Transportation, Construction and Materials
Specifications

SUBMITTALS: (Sec. 05) Provide the following to Engineer:

- a. Shop Drawings, as per General Conditions

No work shall begin on the actual installation until all submittals have been received and approved by the proper reviewing authorities

MEASUREMENT/PAYMENT: (Sec. 06) Measurement/payment will be per lineal foot, measured along the centerline of the casing pipe not to exceed that indicated on the Drawings unless directed in writing by the Resident Representative, and include all labor, work, and material included in this Item

WARRANTY: (Sec. 07) See General Conditions.

PART 2 - PRODUCTS

MATERIALS: (Sec. 08) Polyethylene Casing Pipe ASTM D-3350, F-714 SDR-9, with smooth bore and smooth exterior. Size and wall thickness as indicated on the Drawings.

Grout holes two inches or larger in diameter shall be provided. They shall be plain or tapped, with tapped holes provided with a pipe plug screwed in place.

Grout fill shall be 1:4 cement and mason sand.

Sand fill shall be fine aggregate.

Concrete shall conform to O.D.O.T.

Lubricant shall be bentonite or other approved materials.

PART 3 - EXECUTION

INSPECTION: (Sec. 09) The Contractor shall inspect the location of the work and familiarize himself with the conditions under which the work will be performed and with all necessary detail as to the orderly prosecution of the work. The omission of any details for the satisfactory installation of the work in its entirety not indicated on the Drawings or specified herein, shall not relieve the contractor of full responsibility.

PREPARATION: (Sec. 10) Contractor shall familiarize himself with all requirements of ODOT and Logan County highways, local laws and ordinances. Installation shall conform to all requirements.

Contractor shall provide necessary insurance at no additional cost to the Owner.

INSTALLATION: (Sec. 11) All jacking/boring or tunnel operations shall be performed on a continuous, 24 hour a day basis, if required by the respective Highway Department.

All excavation and backfill shall be performed for pits and for installation of casing pipe.

All sheeting, shoring and dewatering shall be performed as required to accomplish the proper installation of the boring-receiving pits, casing pipe or tunnel liner plates and carrier pipe.

Water jetting not permitted.

Casing Pipe: Casing pipe shall be installed by the jacking or Directional Bore method. A suitable jacking pit shall be excavated and properly shored and braced, if required.

No changes in line or grade will be permitted except with written permission of the Engineer.

The end of the casing pipe shall be kept ahead of excavation unless the earth is too hard to permit such jacking.

Boring inside the casing pipe will be permitted provided the Contractor has suitable

equipment and proper boring arrangement at the head of the casing pipe. If the casing pipe comes in short lengths, the sections shall be welded circumferentially in a workmanlike manner. Welds shall be watertight and capable of withstanding the jacking pressure without distortion.

Lubricant may be used on the outside of the casing pipe.

Augers shall not be pulled once operation is started.

Carrier Pipe: The carrier pipe shall be installed in plastic centralizers to maintain clearance between the outside of the carrier pipe and the inside wall of the casing pipe or liner plate, if called for on the drawings. After the pipe is properly jointed, aligned and secured or braced in the casing pipe or liner plate, the entire space between the pipe and the inside of the casing pipe or liner plate shall be completely filled with sand or grout. It shall be carefully placed so that proper alignment and grade of the carrier pipe will be maintained. Sand or grout shall be used to fill voids as called for on the Drawings.

Suitable bulkheads shall be provided at each end of the casing or tunnel.

FIELD QUALITY CONTROL: (Sec. 12) Testing: Lines shall be tested by the Contractor for the service to which they will be subjected to, or as directed by the Resident Representative, as specified in Item 1600, Testing of Pipe Lines and Sewers.